

# PATENT COOPERATION TREATY

Form the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

## PCT

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/GB2004/001741

International filing date (day/month/year)  
23.04.2004

Priority date (day/month/year)  
25.04.2003

International Patent Classification (IPC) or both national classification and IPC  
H01J35/06

Applicant  
CXR LIMITED

#### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

#### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

#### 3. For further details, see notes to Form PCT/ISA/220.

03.06.05  
ITEM  
DIARIED

Name and mailing address of the ISA:



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized Officer

Ruiz Perez, S

Telephone No. +49 89 2399-2794



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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	
	No: Claims	1-4,36,37
Inventive step (IS)	Yes: Claims	
	No: Claims	38,39
Industrial applicability (IA)	Yes: Claims	1-60
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

Reference is made to the following documents :

D1: US-A-5 633 907 (GRAVELLE ET AL) 27 May 1997 (1997-05-27)

D2: US-A-4 274 005 (YAMAMURA ET AL) 16 June 1981 (1981-06-16)

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document): an electron source suitable for an x-ray tube or an x-ray scanner comprising electron emitting means (figure 2, reference 26), defining a plurality of electron source regions (along the conductors 26), an extraction grid defining a plurality of grid regions each associated with at least a respective one of the source regions (grid plates 28 and 29), and control means arranged to control the relative electrical potential between each of the grid regions and the respective source region (column 3, lines 52 to 60), so that the position from which electrons are extracted from the emitting means can be moved between said source regions (equivalent to changing the shape of the passing electron stream, see column 3, lines 58-59).

The subject-matter of claim 1 is thus anticipated by D1.

1.1 The subject-matter of claims 2-4 is also disclosed in D1 (see figure 3 for claims 2-3, and column 3, line 58 for claim 4, application of a bias negative voltage). The subject-matter of claims 36 and 37 is also anticipated by D1 (column 2, first lines).

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 38 and 39 does not involve an inventive step in the sense of

Article 33(3) PCT.

The subject-matter of claims 38 and 39 differs from the disclosure of D1 in that the x-ray tube is part of an x-ray scanner, and that data sets are collected from detection means. These features, however, are generally known in the art (see for example, D2, column 3, last lines), and form part of normal design procedures.

3. Claims 51-53 contain references to the drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

4. Other objections should be taken into account:

4.1. Claim 24 is drafted in terms of a result to be achieved, without providing the technical features necessary for achieving this result. The requirements of Article 6 PCT are therefore not met.

4.2. Claim 27 seems redundant.

4.3. The 'emitting members' in claim 29 lack an antecedent, as in claim 1 only 'emitting means' are referred to.